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**United States Court of Appeals,
Federal Circuit.**

**The LI SECOND FAMILY LIMITED PARTNERSHIP,
Plaintiff-Appellant,
v.
TOSHIBA CORPORATION and Toshiba America
Electronic Components, Inc.,
Defendants-Appellees.**

No. 99-1451.

Decided Nov. 8, 2000.

Patentee brought suit alleging that defendant made semiconductor devices using process that infringed several claims of plaintiff's patent. The United States District Court for the Eastern District of Virginia, Leonie M. Brinkema, J., ruled that patent was unenforceable due to inequitable conduct. Patentee appealed. The Court of Appeals, Plager, Circuit Judge, held that patentee engaged in inequitable conduct during prosecution of patent application.

Affirmed.

Rolf O. Stadheim, Stadheim & Grear, Ltd., of Chicago, Illinois, argued for plaintiff appellant. With him on the brief was Joseph A. Grear. Of counsel on the brief was Amy S. Owen, Miles & Stockbridge, of McLean, Virginia.

Arthur I. Neustadt, Oblon, Spivak, McClelland, Maier & Neustadt, P.C., of Arlington, Virginia, argued for defendants-appellees. With him on the brief was Carl E. Schlier. Of counsel on the brief were Ronald L. Yin and Stephen M. Everett, Limbach & Limbach L.L.P., of San Francisco,

California.

Before PLAGER, CLEVENGER, and SCHALL, Circuit Judges.

PLAGER, Circuit Judge.

The Li Second Family Limited Partnership (Li) [FN1] filed a patent infringement suit in the United States District Court for the Eastern District of Virginia against Toshiba Corporation and Toshiba America Electronic Components, Inc. (collectively Toshiba). Li alleged that Toshiba makes semiconductor devices using a process that infringes several claims of Li's U.S. Patent No. 4,946,800 (the '800 patent). Among its defenses, Toshiba alleged that the '800 patent is unenforceable because Li and his attorney engaged in inequitable conduct before the United States Patent and Trademark Office (PTO). After a bench trial on the issue, the district court agreed with Toshiba and concluded that the '800 patent is unenforceable due to inequitable conduct. *Li Second Family Ltd. P'ship v. Toshiba Corp.*, No. 97- 306-A (E.D.Va. May 19, 1999) (memorandum opinion and order). Because the district court did not abuse its discretion in holding the '800 patent unenforceable, we affirm.

> FN1. Chou H. Li, the inventor of the patent at issue and other related patents, is the sole general partner of The Li Second Family Partnership, the appellant in this case. This opinion refers to both the inventor and the appellant, the owner of the patents discussed herein, as "Li."

BACKGROUND

1.

Li owns several patents, including the '800 patent and a related patent, U.S. Patent No. 4,916,513 (the '513 patent), in the area of semiconductor technology. Toshiba's inequitable conduct claim arises from Li's alleged failure to disclose to the examiner of the application that resulted in the '800 patent events that occurred during prosecution of the application that resulted in the '513 patent.

The '800 patent issued in 1990 from application Serial No. 05/386,102 (the '102 application), which was filed in 1973 as a continuation-in-part (CIP) of a now-abandoned 1971 application, Serial No. 05/154,300 (the '300 application). The '513 patent issued in 1990 from application Serial No. 05/838,758 (the '758 application), which was filed in 1977, also as a CIP of the '300 application. The '102 and '758 applications were assigned to different examiners at the PTO--the '102 application to Examiner Saba, and the '758 application to Examiner Larkins. The '300 application itself was a CIP of a 1968 application that issued in 1971 as U.S. Patent No. 3,585,714 (the '714 patent), which in turn was a CIP of a 1965 application that issued in 1969 as U.S. Patent No. 3,430,109 (the '109 patent).

The '800 patent is directed to a method for making a semiconductor device with isolation grooves used to separate regions of the device. More specifically, the '800 patent claims a method for making a semiconductor device by forming a semiconductor material substrate of one conductivity type (e.g., P-type); forming on the substrate a semiconductor material body of the opposite conductivity type (e.g., N-type), thus creating a PN junction; and forming an isolation groove in the body extending at least to the PN junction. All claims of the '800 patent include two important limitations: the bottom of the groove must be within 0.1 microns of the PN junction (the "0.1 micron" limitation), and

the PN junction must meet the groove at a curved portion of the groove (the "rounding" limitation).

The '513 patent covers subject matter similar to that of the '800 patent, but its claims are directed to semiconductor structure rather than a method for making semiconductors. In the '758 application that resulted in the '513 patent, all originally filed claims, except claim 16, contained a limitation that the bottom of the groove must be within 1.0 micron of the PN junction (the "1.0 micron" limitation). Claim 16 contained the 0.1 micron limitation found in the claims of the '800 patent. Also, claim 8 as filed contained a limitation similar to the rounding limitation found in the claims of the '800 patent.

Prosecution of the '102 application, which resulted in the '800 patent, continued from its filing date in 1973 until February 10, 1977, when Examiner Saba suspended action on the application pending the outcome of an interference proceeding involving the '300 application. Prosecution of the '102 application did not resume until 1984. Meanwhile, prosecution of the '758 application proceeded without suspension.

2.

During prosecution of the '758 application, Examiner Larkins identified three prior art references--Peltzer, Murphy, and Sanders--that formed the basis for rejections under 35 U.S.C. §§ 102 and 103. In response, Li attempted to eliminate the three references as prior art by asserting that, in accordance with 35 U.S.C. § 120, his claims were entitled to the benefit of the filing date of either the application that resulted in the '714 patent or the application that resulted in the '109 patent. Examiner Larkins rejected Li's arguments,

finding that the earlier patents did not disclose subject matter supporting the claims. In September 1979, Examiner Larkins issued a final rejection of all claims in the application.

Li appealed the final rejection to the PTO Board of Appeals (Board), [FN2] which also rejected his attempt to establish an earlier priority date. In a June 17, 1981 decision, the Board found that Table 1, which appeared in the written descriptions of both the '109 and '714 patents, did not support the 1.0 micron limitation. Joint App. at 945. Even if Table 1 supported the 1.0 micron limitation, the parent--the '300 application--did not contain or incorporate by reference Table 1. Joint App. at 946. Upon Li's request for reconsideration, the Board explained that Table 1 showed distances both less than and greater than 1.0 micron and that neither the '714 patent nor the ' 300 application placed "particular criticality ... upon the less than one micron feature." Joint App. at 960. Thus, the Board concluded that the claims of the '758 application were not entitled to the benefit of an earlier filing date, and that therefore Peltzer, Murphy, and Sanders were available as prior art references against the claims. Although the Board did not explicitly state that the earlier patents lacked support for the 0.1 micron limitation, it did so implicitly when it concluded that none of the claims, including claim 16 with the 0.1 micron limitation, were entitled to an earlier date. Furthermore, the reasoning behind the Board's decision applies equally to the 0.1 micron limitation and the 1.0 micron limitation--no prior patent or application placed any emphasis on the distance between the bottom of the groove and the PN junction.

FN2. In 1984, Congress merged the Board of Appeals and the Board of Patent Interferences to create the Board of Patent Appeals and Interferences. Patent

Law Amendments Act of 1984, Pub.L. No. 98-622, §§ 201-207, 98 Stat. 3383, 3386-89 (codified as amended in scattered sections of 35 U.S.C.).

The Board proceeded to sustain Examiner Larkins's § 102 rejection of claim 1 as anticipated by Peltzer, which the Board found discloses the 1.0 micron feature. Although the Board did not sustain Examiner Larkins's § 102 and § 103 rejections of other claims, the Board entered a new ground of rejection: some claims were rejected under § 103 as obvious in view of Peltzer, and some claims, including claim 16 with the 0.1 micron limitation, were rejected under § 103 as obvious in view of Sanders. The Board explicitly found the 1.0 micron limitation would have been obvious in view of Peltzer's disclosure of a groove extending to the PN junction; this reasoning would also render the 0.1 micron limitation obvious. It appears that the Board rejected claim 16 over Sanders rather than Peltzer because Sanders disclosed the particular shape of the groove that was claimed in addition to the 0.1 micron feature. Original claim 8, which included the rounding limitation, was ultimately allowed and issued as claim 3 in the '513 patent.

3.

When prosecution of the '102 application resumed in 1984, the interference apparently having been discontinued, Li amended some of the claims to include limitations on the distance between the bottom of the groove and the PN junction. In rejecting these claims, Examiner Saba stated that several references, including Peltzer, inherently disclosed such distance limitations. Joint App. at 639, 727. Numerous times during prosecution, Li expressly indicated that the written descriptions of the '109 and '714 patents, and specifically Table 1, supported the distance limitations.

Joint App. at 591- 97, 599, 633. After Li amended the claims with distance limitations to include the 0.1 micron limitation, he continued to assert that his claims were entitled to either the 1965 filing date of the application for the '109 patent or the 1968 filing date of the application for the '714 patent, depending on the other limitations in each claim. Joint App. at 657-64, 767-68. These earlier priority dates were enough to overcome some of the cited references, including Peltzer, but not all of them. Li argued that the remaining prior art references did not sufficiently disclose the distance limitations. Joint App. at 746.

There is no written record of a disclosure to the PTO by Li of the Board's 1981 decision regarding priority dates in the '758 application. Li made reference to the '758 application only in a genealogy chart of related applications that he attached to the last supplemental amendment he filed. Joint App. at 777. Having accepted Li's argument that the claims of the '102 application were entitled to the benefit of an earlier filing date, Examiner Saba allowed the claims, stating that the primary reason for allowance was that the 0.1 micron limitation and the rounding limitation were not taught in the prior art available before the 1968 priority date. Joint App. at 780.

4.

When Li brought suit against Toshiba for infringement of the '800 patent, Toshiba raised the defense that the patent was unenforceable due to Li's inequitable conduct in concealing the Board's decision regarding the '758 application from Examiner Saba. After a bench trial on the issue, the district court held the '800 patent unenforceable. The district court found that Li did not adequately disclose the decision to the examiner and that Li further committed

inequitable conduct by affirmatively and repeatedly arguing to the examiner that his claims were entitled to the benefit of the earlier filing dates. The district court found that the materiality requirement was met because Examiner Saba allowed the claims only after he was convinced that Li was entitled to the earlier filing dates. The court rejected Li's argument that the Board's decision did not apply to the 0.1 micron limitation. Finally, the district court inferred from the high degree of materiality and Li's affirmative misrepresentations that Li had the requisite deceptive intent.

DISCUSSION

Applicants for patents have a duty to prosecute patent applications in the PTO with candor, good faith, and honesty. *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1178, 33 USPQ2d 1823, 1826 (Fed.Cir.1995); *see also* 37 C.F.R. § 1.56. A breach of this duty, which breach can include affirmative misrepresentations of material facts, failure to disclose material information, or submission of false material information, coupled with an intent to deceive, constitutes inequitable conduct. *See Molins,* 48 F.3d at 1178, 33 USPQ2d at 1826. In determining whether inequitable conduct occurred, a trial court must determine whether the party asserting the inequitable conduct defense has shown by clear and convincing evidence that the alleged nondisclosure or misrepresentation occurred, that the nondisclosure or misrepresentation was material, and that the patent applicant acted with the intent to deceive the PTO. *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1048, 34 USPQ2d 1565, 1567 (Fed.Cir.1995). The nondisclosure or misrepresentation must meet threshold levels of both materiality and intent. *Molins*, 48 F.3d at 1178, 33 USPQ2d at 1826. We review all of these underlying factual determinations for clear error. *Glaxo,* 52 F.3d at 1048, 34

USPQ2d at 1567; *Molins*, 48 F.3d at 1178, 33 USPQ2d at 1827.

Once the threshold levels of materiality and intent have been established, the trial court must weigh materiality and intent to determine whether the equities warrant a conclusion that inequitable conduct occurred. *Id.* The more material the information misrepresented or withheld by the applicant, the less evidence of intent will be required in order to find that inequitable conduct has occurred. *N.V. Akzo v. E.I. DuPont de Nemours*, 810 F.2d 1148, 1153, 1 USPQ2d 1704, 1708 (Fed.Cir.1987). We review the trial court's ultimate determination of inequitable conduct under an abuse of discretion standard. *Kingsdown Med. Consultants, Ltd. v. Hollister Inc.*, 863 F.2d 867, 876, 9 USPQ2d 1384, 1388 (Fed.Cir.1988).

1. Nondisclosure and Misrepresentation

Toshiba's inequitable conduct claim arises from Li's alleged failure during prosecution of the '102 application to disclose the Board's decision that the claims of the '758 application were not entitled to the benefit of the filing date of any of Li's earlier applications. The district court concluded that Li failed to disclose the Board's decision and that he further committed inequitable conduct by affirmatively misrepresenting to Examiner Saba that the claims of the '102 application, all of which included the 0.1 micron limitation, were entitled to the 1965 or 1968 filing date of one of the earlier applications, even though he knew the Board had reached a contrary result with respect to claims of the '758 application.

Nothing in the '102 application's written prosecution record shows that Li disclosed directly to Examiner Saba that the

Board had rendered a decision regarding the '758 application that might affect the priority date of the '102 claims. Although the genealogy chart filed by Li shows the chain of parent applications and related applications, including the '758 application, we agree with Toshiba and the district court that the chart does not adequately disclose the relevant information--the Board's decision regarding priority dates. The record shows that Li made reference to the genealogy chart in connection with a discussion of prior art cited during prosecution of the related applications. Unlike an applicant's disclosure of a prior art reference, the content of which is presumed to be before the examiner, *see In re Portola Packaging, Inc.*, 110 F.3d 786, 790, 42 USPQ2d 1295, 1299 (Fed.Cir.1997), Li's submission of the genealogy chart, with reference to the '758 application only in the context of prior art cited in that application and with no mention of the Board's decision, was not sufficient to disclose the Board's decision to Examiner Saba. Moreover, in the same supplemental amendment to which Li attached the genealogy chart, Li reiterated his assertion that the claims were entitled to filing dates of parent applications, a statement inconsistent with the Board's decision that Li purportedly disclosed. We cannot say that the district court clearly erred in finding that there was no adequate written disclosure of the Board's decision.

Li also alleges that his patent attorney, Mr. Kavrukov, orally briefed Examiner Saba regarding the Board's decision. Before the district court, Li proffered only Kavrukov's testimony as evidence that Examiner Saba had discussed the Board's decision with Kavrukov and had told Kavrukov that he did not consider the decision relevant to prosecution of the claims in the '102 application. The PTO requires all business before it to be conducted, or at least documented, in writing. *Litton Sys., Inc. v. Whirlpool Corp.*, 728 F.2d 1423,

1439, 221 USPQ 97, 106 (Fed.Cir.1984) (citing 37 C.F.R. § 1.2). It is the responsibility of the applicant to ensure that the substance of any interview with the examiner is included in the written record of the application, unless the examiner indicates that he will do so. *See id.* (citing Manual of Patent Examining Procedure § 713.04). In view of our usual deference to the district court regarding witness credibility, *see Carroll Touch, Inc. v. Electro Mech. Sys., Inc.*, 15 F.3d 1573, 1580, 27 USPQ2d 1836, 1842 (Fed.Cir.1993), and the lack of any reference in the written record to a conversation between Kavrukov and Saba regarding the Board's decision, we cannot say that the district court committed clear error in finding that Kavrukov's testimony was not credible and that there was no disclosure, written or oral, to Examiner Saba.

Moreover, the district court not only found that Li failed to disclose the Board's decision to Examiner Saba, it also found that Li affirmatively and repeatedly argued to Examiner Saba that the claims of the '102 application were entitled to the benefit of earlier filing dates. In view of the Board's decision that the 0.1 micron limitation was not supported by the earlier patents, [FN3] we agree with Toshiba and the district court that Li's repeated statements regarding earlier filing dates are properly characterized as affirmative misrepresentations. Thus, we discern no clear error in the district court's finding that, during prosecution of the application that matured into the '800 patent, Li engaged in a persistent course of nondisclosure and misrepresentation that may constitute inequitable conduct if the materiality and intent requirements are satisfied.

> FN3. On appeal, Li argues that the '109 and '714 patents support the 0.1 micron limitation and that the Board's decision does not apply to the 0.1 micron limitation. The Board, however, implicitly found

> that the earlier patents did not support the 0.1 micron limitation when it concluded that no claims, including claim 16 with the 0.1 micron limitation, were entitled to the benefit of an earlier filing date. The correctness of the Board's decision is not before us for review.

2. Materiality

Information is deemed material "if there is a 'substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue as a patent.' " *Halliburton Co. v. Schlumberger Tech. Corp.*, 925 F.2d 1435, 1440, 17 USPQ2d 1834, 1839 (Fed.Cir.1991) (quoting 37 C.F.R. § 1.56 (1989)). [FN4] Because the effective filing date of each claim in a patent application determines which references are available as prior art for purposes of §§ 102 and 103, information regarding the effective filing date is of the utmost importance to an examiner. Consequently, an applicant's misrepresentation that he is entitled to the benefit of an earlier filing date is highly material.

> FN4. We recognize that this standard reflects an older PTO rule in effect at the time the patent-in-suit was prosecuted and that the current PTO rule defines materiality differently. *See Baxter Int'l, Inc. v. McGaw, Inc.*, 149 F.3d 1321, 1328 n. 3, 47 USPQ2d 1225, 1229 n. 3 (Fed.Cir.1998).

In this case, the district court concluded that Examiner Saba allowed the claims of the '800 patent only after he was convinced that Li was entitled to an earlier filing date, and that therefore the Board's decision that similar claims in the '758 application were not entitled to the earlier date was

material. While the district court may have overstated the examiner's position, it is true that Li's misrepresentations regarding priority dates eliminated from consideration the Peltzer reference, which Examiner Saba had found disclosed the 0.1 micron feature and which the Board effectively had found disclosed the 0.1 micron feature. Particularly in a case such as this, in which an applicant's misrepresentation and nondisclosure of priority date information eliminates a reference specifically cited by the examiner and previously found by the Board to disclose an important feature of the claimed invention, there is no doubt that such information is highly material. *Cf. Rohm & Haas Co. v. Crystal Chem. Co.*, 722 F.2d 1556, 1571, 220 USPQ 289, 300 (Fed.Cir.1983) ("[T]here is no room to argue that submission of false affidavits [to overcome prior art] is not material.").

Li's argument that the Peltzer reference is not material is misplaced. The relevant issue is the materiality of the priority date information, not the materiality of Peltzer. Li's false statements regarding priority dates are material because Li induced Examiner Saba's reliance on those statements during examination. *Cf. General Electro Music Corp. v. Samick Music Corp.*, 19 F.3d 1405, 1411, 30 USPQ2d 1149, 1154 (Fed.Cir.1994) (finding a false statement that the patentee had conducted a prior art search to be material because it induced reliance by the PTO in granting a petition to make special).. As a result of that reliance, Examiner Saba ultimately allowed the claims by considering only references with dates earlier than the priority dates asserted by Li. We cannot determine what the outcome of prosecution would have been in the absence of the examiner's reliance on Li's misrepresentations.

Even if the materiality of Peltzer were at issue, Li's conclusion that Peltzer is not material is erroneous. The

Board clearly found that Peltzer disclosed the 1.0 micron feature when it sustained Examiner Larkins's § 102 rejection of claim 1. As discussed, the Board's reasoning would also lead to the finding that Peltzer disclosed the 0.1 micron feature. Thus, Peltzer is material because it discloses the 0.1 micron feature, which both Li and Examiner Saba considered to be an important limitation in the claims.

Finally, Li argues that because the claims of the '800 patent include the rounding limitation, they are patentable over the prior art even without the benefit of the earlier filing dates. For support, Li points to the Board's decision in the '758 application to allow claim 8, which contained the rounding limitation, and notes that the district court erroneously stated that the Board had found that Peltzer disclosed the rounding feature. While Li's contentions regarding the rounding limitation may be correct, they do not render immaterial the Board's decision regarding the 0.1 micron limitation. Information concealed from the PTO may be material even though it would not invalidate the patent. *See Gardco Mfg., Inc. v. Herst Lighting Co.*, 820 F.2d 1209, 1213, 2 USPQ2d 2015, 2019 (Fed.Cir.1987) ("The simple fact is that a patent may be valid and yet be rendered unenforceable for misuse or inequitable conduct."). As stated, the test for materiality is whether a reasonable examiner would have considered the information important, not whether the information would conclusively decide the issue of patentability. *See A.B. Dick Co. v. Burroughs Corp.*, 798 F.2d 1392, 1397, 230 USPQ 849, 853 (Fed.Cir.1986) ("[T]he test for materiality is *not* whether there is anticipation or obviousness but, rather, what a 'reasonable examiner would consider ... important in deciding whether to allow the application to issue as a patent.' ") (emphasis and alteration in original). As explained, Li's nondisclosure of the Board's decision and misrepresentation of priority dates easily satisfy this test.

There is no clear error in the district court's finding that the Board's decision regarding priority dates was material.

3. Intent

"Intent [to deceive the PTO] need not be proven by direct evidence. Indeed, '[d]irect proof of wrongful intent is rarely available but may be inferred from clear and convincing evidence of the surrounding circumstances.' " *Baxter*, 149 F.3d at 1329, 47 USPQ2d at 1230 (quoting *LaBounty Mfg., Inc. v. USITC*, 958 F.2d 1066, 1076, 22 USPQ2d 1025, 1032 (Fed.Cir.1992)). When determining whether intent has been shown by clear and convincing evidence, a court must weigh all evidence, including evidence of good faith. *Baxter*, 149 F.3d at 1330, 47 USPQ2d at 1231.

The circumstances in this case support the district court's finding of intent. Li not only failed to disclose to Examiner Saba the Board's decision regarding priority dates, he also made numerous statements during prosecution of the '102 application that were contrary to the Board's decision. We can infer from Li's affirmative misrepresentations that Li deliberately concealed the Board's decision from Examiner Saba. *See Rohm*, 722 F.2d at 1571, 220 USPQ at 300 (inferring deceptive intent from submission of false affidavits to overcome prior art).

We are not persuaded by Li's arguments that his other actions demonstrate good faith and lack of deceptive intent. The genealogy chart that Li attached to a supplemental amendment did not sufficiently disclose the Board's decision and was not provided for the purpose of determining priority dates; thus, we do not see how the chart shows a lack of deceptive intent. Li also argues that his disclosure of the Board's decision during prosecution of a later application,

filed after the '800 patent issued, is evidence that Li lacked deceptive intent. In *Akron Polymer Container Corp. v. Exxel Container, Inc.*, 148 F.3d 1380, 47 USPQ2d 1533 (Fed.Cir.1998), upon which Li relies, this court found no deceptive intent when a patent applicant disclosed to the examiner of one application the copendency of a second application but failed to disclose the copendency to the examiner of the second application. In contrast, Li's disclosure of the Board's decision to the examiner of a third application, filed after the '102 application issued as the '800 patent, has no bearing on whether Li acted with deceptive intent during prosecution of the '102 application. Li's arguments are insufficient to overcome the inference of deceptive intent, and thus we perceive no clear error in the district court's finding that Li acted with the intent to deceive the PTO.

4. Inequitable Conduct

Having established that the district court committed no clear error in finding that Li's conduct met threshold levels of materiality and intent, we conclude that the district court did not abuse its discretion in determining that Li's persistent course of nondisclosure and misrepresentation constituted inequitable conduct. Accordingly, we affirm the district court's judgment that the '800 patent is unenforceable due to inequitable conduct.

CONCLUSION

The decision of the district court is

AFFIRMED.

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
(Alexandria Division)

THE LI SECOND FAMILY LIMITED PARTNERSHIP,	)	
Plaintiff,	)	
v.	)	Civ. Action No. 97-306-A
TOSHIBA CORPORATION, and TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.,	)	
Defendants and Counterclaim-plaintiffs,	)	
v.	)	
CHOU H. LI AND THE LI SECOND FAMILY LIMITED PARTNERSHIP,	)	
Counterclaim-Defendants.	)	

JUDGMENT

Pursuant to the order of this Court entered on May 19, 1999 and in accordance with Federal Rules of Civil Procedure 58, JUDGMENT is hereby entered in favor of Toshiba

Corporation and Toshiba American Electronic Components, Inc.

NORMAN H. MEYER JR. CLERK

/s/Nora M. Keaugh

By:_____
Deputy Clerk

Dated May 19, 1999

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Alexandria Division

THE LI SECOND FAMILY LIMITED PARTNERSHIP,	)	
Plaintiff,	)	
vs.	)	Civ. Action No. 97-306-A
TOSHIBA CORPORATION, and TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.,	)	
Defendants and Counterclaim-Plaintiffs,	)	
vs.	)	
CHOU H. LI AND THE LI SECOND FAMILY LIMITED PARTNERSHIP,	)	
Counterclaim-Defendants.	)	

ORDER

This matter came before the Court on counterclaim-plaintiffs' counterclaim alleging that counterclaim-defendants, Chou H. Li and The Li Second Family Limited Partnership, engaged in inequitable conduct in prosecuting

the patent-in-suit.

For the reasons stated from the bench, and as elaborated in the accompanying Memorandum Opinion, it is hereby

ORDER that judgment be and is entered in favor of counterclaim-plaintiffs on their inequitable conduct counterclaim, and it is hereby

ADJUDGED, ORDERED and DECLARED that U.S. Patent 4,946,800 is invalid and unenforceable. Accordingly, plaintiff's complaint against defendants is DISMISSED WITH PREJUDICE. This ruling moots all other issues in the counterclaim.

The Clerk is directed to forward copies of this Order to counsel of record and to enter final judgment in favor of Toshiba Corporation and Toshiba America Electronic Components, Inc., pursuant to Fed. R. Civ. P. 58.

Entered the 19th day of May, 1999.

/s/Leonie M. Brinkema

Leonie M. Brinkema
United States District Judge

Alexandria, VA

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
(Alexandria Division)

THE LI SECOND FAMILY LIMITED PARTNERSHIP,	)	
Plaintiff,	)	
vs.	)	Civ. Action No. 97-306-A
TOSHIBA CORPORATION, and TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.,	)	
Defendants and Counterclaim-Plaintiffs,	)	
vs.	)	
CHOU H. LI AND THE LI SECOND FAMILY LIMITED PARTNERSHIP,	)	
Counterclaim-Defendants.	)	

MEMORANDUM OPINION

This civil action is a patent infringement suit by Plaintiff, the Li Second Family Limited Partnership ("Partnership"), against defendants Toshiba Corporation and Toshiba America Electronic Components, Inc. (collectively "Toshiba") over allegations that defendants' various products are made by a process that infringes claims 5, 14, 18, 24 and

25 of plaintiff's U.S. Patent 4,946,800 ("the '800"). Among its defenses to the Partnership's charge of infringement, Toshiba alleges that the patent-in-suit is unenforceable because the inventor, Chou H. Li, and his attorney, Ivan S. Kavrukov, engaged in inequitable conduct before the U.S. Patent and Trademark Office ("PTO"). *See* First Amended Answer and Counter claim, ¶¶ 35-56. Toshiba prays for a declaratory judgment that the claims of the patent-in-suit, to the extent asserted to cover a Toshiba process or product, are invalid and unenforceable. *See id.* At 30.

On January 5 and 6, 1998, on the eve of trial, the Court held a one-and-a-half day bench trial on Toshiba's counterclaim of inequitable conduct, during which time the Court heard fact testimony, admitted numerous exhibits, and considered the parties' written and oral arguments. This Memorandum Opinion amplifies the findings of fact and conclusions of law, preliminarily announced from the bench pursuant to Fed. R. Civ. P. 52(a).[1]

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1 After our oral ruling, plaintiff sought to supplement the record by advising the Court of a subsequent decision from the district court in Delaware in which the court declined to follow a jury finding that defense counsel Kavrukov engaged in inequitable conduct before the PTO. *See Quantel Ltd. v. Adobe Systems, Inc.*, Case No. 96-18-RM (D. Del. Apr. 30, 1998). As we stated in our May 14, 1998, order, the *Quantel* jury's initial finding of inequitable conduct by Kavrukov did not play any role in our finding of inequitable conduct in this case. Furthermore, the patents involved in *Quantel* were wholly unrelated to those in the case at bar. Therefore, we reaffirm our earlier Order refusing to supplement the record with this extraneous information.

Plaintiff also sought to supplement the record by

I.

Background

Plaintiff[2] is the owner of the '800 patent, which discloses a "method for making [a] solid-state device utilizing isolation grooves." The patent teaches a method for making improved surfaces of semiconductor devices, such as silicon integrated circuits, whose surface properties and their exact measurements are critical to the successful operation of the circuits. The patent builds on the inventor's previous work in the field, and is a continuation-in-part of a 1971 invention (patent application 154,300), now abandoned, which was a continuation-in-part of a 1968 patent (U.S. Patent 3,585,714), which was a continuation-in-part of a 1965 patent (U.S. Patent 3,430,109). Plaintiff also owns a related patent, U.S. Patent 4,916,513 ("the '513"), applied for in 1977 and allowed on April 10, 1990. The prosecution of the '513 patent has a direct bearing on the counterclaim in

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including evidence that plaintiff's '626 patent was not abandoned – as defendants had suggested during trial. We did not rely on this information for our ruling, although portions of the prosecution of the '626 application are relevant to our decision. Therefore, we deny plaintiff's Motion to Supplement the Record.

2 Counterclaim-defendant Chou H. Li is the sole general partner of The Li Second Family Partnership. Both Li and the Partnership are counterclaim defendants in this action.

the instant suit.[3]

The '800 application was filed on August 6, 1973, and the patent finally issued on August 7, 1990. The patent examiner throughout the prosecution history of the '800 was William Saba.

The '800 Patent

Claim 5 of the '800 patent reads:

A method of making a dielectrically isolated solid state structure comprising:

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3 The various application serial numbers, corresponding patent numbers, and filing and issue dates are as follows:

Application SN	File Date	Patent No.	Issue Date
490,955	Sept. 28, 1965	3,430,109	Feb. 25, 1969
761,646	Sept. 23, 1968	3,585,714	June 22, 1971
154,300	June 18, 1971	abandoned	-
838,758	Oct. 3, 1977	4,916,513	April 10, 1990
386,102	Aug. 6, 1973	4,946,800	Aug. 7, 1990

providing a simiconductor material having a selected shape; and

forming at least in part from said semiconductor material, (i) a semiconductor material substrate of one conductivity type having a first surface, (ii) a semiconductor material body of opposite conductivity type, or said first surface of the substrate, and (iii) PN isolation junction extending laterally along at least a part of the structure and forming an isolation barrier between said substrate and said body, said body being divided into a plurality of semiconductor material pockets which are laterally spaced from each other by at least one isolation groove which is at least partly filled with a solid electrically isolating material and extends into the structure at least to said isolation junction and together therewith electrically isolates said plurality of pockets from each other;

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wherein the forming step comprises continuously rounding at least a major portion of the width of said at least one groove, wherein the radius of curvature at any one point of said rounded major portion of the width of said at least one groove in less than 1 cm, to thereby spread out said compressive stresses and help prevent the formation of physical defects, and wherein the bottom of said at least on groove is less than 0.1 microns from said PN isolation junction.

Claim 14 of the '800 patent reads:

A method of making a solid state device comprising: providing a body of a first solid state material having a contact surface;

providing a pocket of a second state material having a top surface and a side surface, and a bottom surface which makes electronic contact with at least a selected portion of the contact surface;

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forming at least one isolating groove of an electronically isolating matter which adjoins said surface of the pocket and extends from the top surface of the pocket toward the body and intersects the barrier;

wherein the forming step comprises rounding at least a major portion of the width of the isolating groove and positioning the bottom of the groove to within about 0.1 microns of the level of the intersection between the groove and the rectifying barrier.

Claim 18 of the '800 patent reads:

A method of making a solid state device comprising:

providing a solid state material having a selected shape;

forming at least in part from said solid state material having a contact surface and at least one pocket of second solid state material having a side surface and having a bottom surface which makes electronic contact with at least one select portion of the contact surface;

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wherein the forming step comprises forming said at least one groove of a solid electrically isolating matter that fills the at least one groove at least to a level above the level at which

the groove meets the interfacial rectifying barrier and positioning the bottom of the at least one groove within about 0.1 microns of the level at which the groove meets the rectifying barrier and wherein the barrier meets the groove at a curved portion of the groove.

Claim 22 of the '800 patent teaches:

A method of making a dielectrically isolated solid-state structure comprising:

providing a semiconductor material having a selected shape; and

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including forming said at least one groove of solid isolation material and including forming the bottom of said at least one isolation groove such that said bottom is within about 0.1 microns from the level of the nearest intersection of said Pni isolating junction by said at least one groove and wherein the PN isolation junction meets the groove at a curned portion of the groove.

Dependent claim 24 states:

A method as in claim 22 in which said forming step continuously rounds at least a major portion of the width of said at least one isolation groove, including the central portion of the bottom of said at least one groove, such that the radius of curvature at any one point at said central portion of the bottom of said at least one groove is less than 1 cm.

Dependant claim 25 teaches:

A method as in claim 24 in which said forming step causes said solid isolation material in said at least one isolation groove to exert compressive stresses and said rounding improve the electrical and mechanical performance of said structure by making said structure less sensitive to tensile stresses.

Thus, each of the claims-in-suit either contains or depends on the limitation of "within about 0.1 microns" or "less than 0.1 microns."

The prosecution history for the '800 shows that Li first applied for the '800 on August 6, 1973. See Defendants' Exhibit (DX) 2. Li and Kavrukov had extensive correspondence and meetings with Saba over the course of prosecuting the '800 application. After submitting an amendment and a supplemental amendment, all pending claims then-numbered as 101-124 were rejected on October 29, 1987, on the grounds of double patenting, failure to provide enabling disclosure, and obviousness. *See* DX 2 at 172-76. Moreover, Saba found claims 101-105, and 112-115 unpatentable over, among other references, Peltzer. *See id.* at 175.

In response to this office action, Kavrukov submitted an amended claim 101. As to amended claim 101, he argued that the 1965 filing date of the application which yielded the '109 patent, a parent of this application, should be used as the application date. Kavrukov stated:

Amended claim 101 is supported by the portion of the specification which is entitled to the 1965 filing date of the earliest parent application, i.e., it is supported by the disclosure of, *inter alia*, an air-filled groove which together with an isolation PN junction electrically isolates from each

other two adjacent pockets. This claim includes a recitation of the following features.

(a) The bottom of the groove is less than 0.1 microns from the PN isolation junction; . . . .

Id. at 193.

After a May 1, 1989, interview with Saba, Kavrukov submitted another supplemental amendment, rewriting the claims and renumbering them 1-26. *See id.* at 302. In the remarks section, he argued that old claim 101 (renumbered 1) as well as many others should be allowed because:

none of the prior art of record that predates the 1965 filing date teaches the 0.1 microns feature recited in each independent claims 101, 116 and 118 of this first group. It is submitted that all of the claims of this first group are allowable at least for this reason. . . . .

Id. at 304. He also cites to the 1968 patent for further support. *See id.*

What the prosecution history of the '800 reveals is that Saba more than once rejected Li's claims as to the "less than 0.1 microns" or "within 0.1 microns" element as obvious over the relevant prior art that was available before Li applied for the '800 in 1973. To avoid a finding of anticipation or obviousness, Li needed to show that he was entitled to the priority date of his earlier filed patents, that is, U.S. Patent 3,585,714 ("the '714") and U.S. Patent 3,430,109 ("the '109"). See generally DX 2 at 287-308.

In response to the May 1989 filing by Li, Saba finally allowed the '800 explaining that:

the primary reason for the allowance of the claims is the limitation that the bottom of the isolation groove is less than 0.1 microns from the PN isolation junction (barrier) and that the barrier meets the groove at a curved portion of the groove. This teaching was not in the prior art. *Id.* at 316. To reach that conclusion, Saba accepted Li's argument that the 1965 and 1968 filing dates should constitute the priority dates for various claims in the '800 application, and therefore Saba allowed the '800 as not obvious over the prior art.

The '513 Patent

The heart of Toshiba's inequitable conduct allegation centers around what happened during the prosecution history of the '513 patent. Toshiba alleges that Li, in applying for the '800 patent, intentionally withheld from the PTO highly relevant information from the prosecution history of the '513. Specifically, Toshiba alleges that Li failed to inform Saba about the PTO's Board of Appeals' denial of the 1965 and 1968 priority dates.

On October 3, 1977, several years after applying for the '800, Li filed an application for a "Dielectrically Isolated Integrated Circuit Structure," that is, the '513. Both the '800 and the '513 applications were pending simultaneously. *See.* DX 3; DX 4. Both the '800 and the '513 claimed priority to the same chain of applications, specifically going back to the 1965 application that issued as the '109 and the 1968 application that issued as the '714. *See Supra* fn. 3; *see also* DX 2 at 313. In the '513 application, Li claimed essentially the same subject matter as he claimed in the '800 patent, except the former addressed a structure and the latter a method for making the structure.

Claim 1 of the '513 claims, among other features:

A semiconductor material structure comprising:

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closed annular grooves of an electrically isolating matter which extend downwardly into the structure from the top surface layers, intersect the PN junction and divide a top portion of the structure into a plurality of islands which are laterally spaced from each other by the width of the grooves and are electrically isolated from each other by said grooves and said PN junction, each groove having a bottom which is within one micron of the PN junction.

'513 Patent at Col. 8.

The '513 application was examined by patent examiner William Larkins, who initially rejected all of its claims. In particular, he found that a 1973 reference, Sanders, made the element of the isolation groove being within one micron of the PN junction "obvious." He also noted, "[T] his claim *clearly* has no earlier effective date than the present filing date." DX 4 at 48. Li had to convince the PTO that the '513 was entitled to the priority dates of his 1968 and 1965 patents, that is, the '714 and the '109, respectively. However, Larkins held that Li was not entitled to priority for these earlier filed aplications because the disclosure in those earlier applications did not correspond to what was claimed in the '513. *See* DX 4 at 101.

[R]ather, applicant is at best attempting to take bits of earlier applications, out of context, and reassemble them along with generous amounts of subject matter taken from

still later works of others (i.e. Peltzer, Sanders, etc.), in order to attempt to obtain patent protection on subject matter which was not only not invented by applicant [Li], but was later invented by others.

DX 4 at 101. Larkins thus concluded that Li was "simply not entitled to rewrite his later applications in an attempt to cover later inventions of others, and still rely on the filing date of early applications which clearly did not disclose such inventions." *Id.*

The '513 Appeal

Li appealed Larkins' decision to the U.S. Patent and Trademark Board of Appeals ("Board") which heard oral argument on February 17, 1981. In a written opinion, issued June 17, 1981, the Board stated:

A threshold issue with respect to the art rejections is whether the appellant is entitled to the benefit of the filing dates of his earlier applications. All the claims at bar require that the bottom of the groove(s) be within one micron of the PN junction. The appellant says that this feature is disclosed in Table 1 at page 10 of grandparent application serial no. 761,646 and at the top of column 7 of the resulting patent (3,585,714). . . .

The appellant has not explained how the referenced table supports the one micron limitation. The table pertains to surface expansion as it relates to grooves of different radii of curvature and depths. How this table supports the feature in question is beyond us.

DX 4 at 142. In short, the Board concluded that Li was not entitled to an earlier filing date because Table 1 of the

earlier-filed '714 patent, upon which Li heavily relied, did not support the "within one micron" limitation of the '513 patent.

The Board further held that, even if the '714 application did support the within one micron limitation, Li was not entitled to its filing date because there was a break in the "chain of continuity," namely, the intervening '300 application filed in 1971 did not include or incorporate by reference the claimed one micron feature. *See* DX at 143. "Accordingly, we conclude that [Li] is not entitled to the benefit of the filing dates of any of his earlier applications as to the claimed invention in this application." DX 4 at 143. Therefore, the Board concluded, several of the '513 claims were obvious in light of the prior art.

Li requested reconsideration of the Board's finding. On August 17, 1981, the Board affirmed its earlier decision, holding:

Neither the parent application nor the grandparent application discloses any way that the distance from the bottom of the groove to the PN junction should be less than one micron. On the contrary, both applications disclose a range of distances well beyond one micron with no particular criticality placed upon the less than one micron feature claimed in the present invention.

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Accordingly, we remain of the view that the once micro feature is not supported by the grandparent application and that, even is this feature was so supported, it is not included in the parent ['300] application thereby breaking the chain of continuity.

DX 4 at 157.[4]

Legal Standard

A patent will be unenforceable if an applicant "fail[s] to disclose material information, or submi[ts] false information, coupled with an intent to deceive." *Baxter Int'l, Inc. v. McGaw, Inc.*, 149 F.3d 1321, 1327 (Fed. Cir. 1998). All applicants for patents have an "uncompromising duty" to prosecute applications with candor, good faith, and honesty.

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4 The "within one micron" limitation eventually survived and became part of each of the four claims in the '513. When the Board reviewed Larkins' rejection of all 19 claims, the Board affirmed Larkins as follows: claim 1 was obvious over Peltzer; claim 1 was also obvious over Murphy; and claim 9 was obvious over Sanders. The Board reversed Larkins as follows: claims 2-5, 7, 8, 10-19 were not obvious over either Peltzer or Murphy; and claim 6 was not obvious over Li's prior work. *See* DX 4 at 146. However, the Board went beyond Larkins and held that claims 1-4, 7, 10, 11, 13-19 were obvious in light of Sanders. Thus, the only claims of the original 19 that survived were 5, 6, 8, and 12.

In October 1985, Li filed an amendment in which he placed the original claims 5, 6, 8 and 12 in "independent from." *See* DX 4 at 175. Each claim contained the "within one micron" limitation, plus another limitation which the Board had deemed not obvious. Thus, for example, the new claim 5 was a combination of the original claim 1 (which was rejected) and the original claim 5 (which was accepted). On April 2, 1986, Li submitted a final amendment, in which he retained those four claims (5, 6, 8, and 12) and renumbered them 1, 2, 3 and 4. See DX 4 at 179. These claims became the four claims for the '513 patent.

See 37 C.F.R. § 1.56; *Precision Instrument mfg. co. v. Automotive Maintenance Mach. Co.*, 324 U.S. 806, 818 (1945).

When an applicant withholds material information from the PTO with an intent to procure the allowance of claims, the applicant is guilty of inequitable conduct and the patent obtained is unenforceable. *See FMC Corp. v. Manitowac Co.*, 835 F.2d 1411, 1415 (Fed. Cir. 1987); *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1178 (Fed. Cir. 1995). Inequitable conduct includes "affirmative misrepresentation of a material fact, failure to disclose material information, or submission of false material information, coupled with an intent to deceive." *Consolidated Aluminum Cor. v. Foseco Int'l Ltd.*, 910 F.2d 804, 812 (Fed. Cir. 1990). Put another way, inequitable conduct is "the unclean hands doctrine applied to particular conduct before the PTO." *Id.* The applicant's representatives, including his attorneys or agents, are bound by the same duty. *See* 37 C.F.R. § 1.56.

Inequitable conduct analysis requires three steps. First, the Court must determine whether there is clear and convincing evidence that the false or nondisclosed information meets a threshold degree of materiality. *See Baxter Int'l*, 149 F.3d at 1327. Information is "material" when "there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application issue as a patent." *Id.* at 1327-28. Materiality exists if the information gives rise to a *prima facie* (i.e. rebuttable) case of unpatentability, or if the omitted reference refutes or is inconsistent with the applicant's patentability arguments.

Second, there must be clear and convincing evidence

of intent to deceive. *See id.* at 1327. Intent is most often proven by indirect eividence. *See Rohn & Haas Co. v. Crystal Chemical Co.* 722 F.2d 1556, 1571 (Fed. Cir. 1983) (noting that "direct proof intent to mislead is normally absent"). Thus, intent may be proven indirectly by showing "acts[,] the natural consequences of which are presumably intended by the actor." *See Kansas Jack, Inc. v. Kuhn*, 719 F.2d 1144, 1151 (Fed. Cir. 1983).

Once the thresholds of materiality and intent are met, the court must balance them and determine as a matter of law whether inequitable conduct occurred. "The more material the omission, the less evidence of intent will be required in order to find that inequitable conduct has occurred." *Baxter Int'l*, 149 F.3d at 1327, *citing N.V. Akzo v. E.I. Dupont de Nemours*, 810 F.2d 1148, 1153 (Fed. Cir. 1987). "An overwhelming showing of materiality plus applicant's knowledge of that materiality may raise an inference of intent so strong as to require a convincing showing of subjective good faith to offset it." *FMC Corp. v. Manitowoc Co.*, 835 F.2d 1411, 1415, n.7 (Fed. Cir. 1987). The test, then, requires a judgment of the totality of circumstances. The court must decide whether the conduct "in its totality manifests a sufficiently culpable state of mind to warrant a determination that it was inequitable." *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1181 (Fed. Cir. 1995). Inequitable conduct is a matter for the court because judicial discretion is involved in balancing materiality and intent. *See American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F. 2d 1350, 1362 (Fed. Cir. 1984).

We now turn to the nature of Li's disclosure to examiner Saba during his prosecution of the '800 to determine whether he intended to withhold material information in such a way as to render his conduct legally

"inequitable."

Disclosure

We find in this record clear and convincing evidence that Li failed to disclose to Saba in any respect the Board's decision in the prosecution of the '513 concerning the priority dates. There is not a single reference to the Board's decision in any of Li's written submissions to Saba. Furthermore, in Saba's deposition, he repeatedly stated that he could not recall any disclosure of the Board's opinion by Li or Kavrukov, who was the attorney prosecuting the '800 application. *See* Saba Depo. At 22-25.

Li argues that adequate written disclosure was made through the genealogy table attached to a supplemental amendment submitted to Saba in 1989.[5] *See* DX 2 at 322. This chart shows the pending '800 application (SN 386,102), alongside a box that says, "SN 838,758, Filed 10/3/1977." The 838,758 application matured into the '513 patent. Thus, Li asserts, he had disclosed to Saba that the '513 patent – and its entire prosecution history– was very closely related to the instant application.

Given the significant nature of the Board's decision, we find that merely submitting the genealogy table was wholly insufficient, and failed to constitute adequate written disclosure. First, to borrow the words of the Board, the table

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5 It is difficult to be certain of the exact date that this document was filed with the PTO. From its face, we can tell that it came after a May1, 1989, interview with Saba. Handwriting on the document suggests that it was submitted on June 21, 1989.

has no evidentiary value. It is simply a schematic diagram with no discussion of the sibling patent or its prosecution history. The chart does not even identify the patent by its U.S. Patent Number. Second, and more significantly, the supplemental amendment does not direct Saba to the only significant fact about the '513: that the Board explicitly held that Li was not entitled to priority dates from his earlier applications. Considering the importance of this ruling by the Board, Li cannot satisfy his burden of candid disclosure by burying an unexplained reference to the '513 in the back of a supplemental amendment. The chart was, in fact, no disclosure at all. A non-specific statement "only in general terms" is insufficient as a matter of law to satisfy the duty of disclosure. *La Maur, Inc. v. DeMert & Dougherty, Inc.*, 265 F. Supp. 961, 973 (N.D. Ill. 1965).

Li also argues that he satisfied his disclosure duty by orally informing Saba about the Board's previous decision. Although disclosures may be made orally, Rule 2 of the Rules of Practice in Patent Cases requires that all business before the PTO be transacted in writing. *See* 37 C.F.R. § 1.2. Thus, in order to assert that there has been adequate disclosure, there must be a written record of any such disclosure. We find no such record in any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt." *Id.* The PTO's rules further state that "no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted," 37 C.F.R. § 1.56, and oral submissions are not sufficient to avoid a charge of fraud. *See, e.g., Fox Indus. Inc. v. Structural Preservation Systems, Inc.*, 1988 WL 18937, 6 USPQ2d 1577, 1598 n.5 (D. Md. 1988), *aff'd* 922 F.2d 801 (Fed. Cir. 1990); *Litton Systems, Inc. v. Whirlpool Corp.*, 728 F.2d 1423, 1439 (Fed. Cir. 1984), *implied overruling on other grounds recognized by Braun Inc. v.*

Dynamics Corp., 975 F.2d 815 (Fed. Cir. 1992). "Because all business with the PTO is to be transacted in writing and its actions must be based exclusively on the written record, 37 C.F.R. [§] 1.2, this question of fact should never be difficult to resolve." *Rohm & Haas Co. v. Crystal Chemical Co.*, 722 F.2d 1556, 1572 (Fed. Cir. 1983).

On this written record, we do not find credible Li's assertion that he orally briefed Saba specifically about the Board's ruling. First of all, such testimony is suspect because Li obviously has a significatn monetary interest in the outcome of this proceeding. Second, such disclosure was too significant to have been made orally, because it went to the very heart of whether several claims in the '800 were obvious. Third, Saba – who has no financial stake in the outcome of the case – testified through a deposition the he did not recall any oral disclosure from Li or his attorney about the Board's decision. *See* Saba Depo. At 22-25. Lastly, the prosecution history of the '800 shows that Saba carefully made written records of oral discussion with Li and Kavrukov. *See, e.g.*, DX 2 at 118, 135, 266, 314. In none of these does he refer to the Board's decision. Thus, we conclude that no disclosure was ever made.

We also conclude that Li's inequitable conduct extended beyond failing to disclose relevant information, in that he, as well as Kavrukov, affirmatively and repeatedly argued to Saba that the '800 should get the benefit of the earlier filing dates, even though they both knew that the Board had already made a contrary ruling during the '513 prosecution. For example, in an amendment filed October 30, 1985, with the PTO, Kavrukov wrote:

> It is noted that this application [for the '800] is a continuation-in-part of the application filed on September 23, 1968 which matured into U.S. Patent

> No. 3,585,714. It is submitted that the claims remaining in this application are entitled to the filing date of the parent application.

DX 2 at 125. Even though the Board had held four years earlier as to the '513 that Li was not entitled to the earlier filing date, Kavrukov expressly argued before Saba that the '800 was entitled to that earlier date.

In addition, on May 14, 1985, five years after the Board's decision in the '513 prosecution, Li and Kavrukov had a personal interview with Saba regarding the pending claims of the '800 application. *See* DX 2 at 135. Following that interview, Li submitted a paper entitled "Follow up on Interview" in which he again specifically misled Saba, stating, "[W] e explained that many issues on priority have already been examined and decided in favor of [Li's earlier] Patents 3,430,109 and 3,585,714." DX 2 at 136. Nothing in those notes indicates that either Li or Kavrukov alerted Saba to the Board's priority decision regarding the '513. To the contrary, the notes reveal Li affirmatively misinforming Saba that he was entitled to the earlier filing date of his '714 application. Despite Li's argument, Saba again rejected the claims of the '800. On May 24, 1988, in response to Saba's rejection of the application, Li again amended his claims but continued to argue that the claimed features of within 0.1 microns and rounding were not disclosed in the prior art that predated his earlier filing date. Li again improperly asserted that he was entitled to the earlier filing date, and again did not inform Saba that the Board had specifically held to the contrary seven years earlier. See DX 2 at 193.

On November 23, 1988, Saba again rejected the pending '800 claims. In response, Li and Kavrukov made the following statement to Saba on June 21, 1989:

> Each of the independent claims of this group recites a 0.1 microns feature, and none of the prior art of record that predates the 1968 ['714 patent application] filing date teaches this feature.

DX at 304. Thus, Li again stated that he was entitled to the filing date of his earlier filed application while never informing Saba that the Board had expressly held to the contrary eight years earlier.

In his deposition, Li defended these statements to Saba by asserting that he was not trying to mislead, but rather he believed that Saba knew about the Board's decision and was overruling it. "[I]n fact, he [Saba] overruled the board," Li testified. Li Depo. At 71. When asked if Saba specifically said he was overruling the board, Li said "No . . . . But technically he overruled the board." *Id.* However, Li and his attorney, bot of whom were registered to practice before the PTO, were fully aware that Saba could not overrule a prior Board decision. In fact, in his prosecution of the '513, Kavrukov actually complained that examiner Larkins seemed unwilling to follow an earlier Board ruling. Specifically, Kavrukov wrote, "The examiner's Answer additionally raises the issue of the Examiner's apparent unwillingness to accept as correct a prior decision of the Board of Appeals." DX 4 at 136. Kavrukov quotes Larkins who says, "While, of course, the Examiner cannot accept the prior Board decision as correct, *it must be followed until the Board reverses its prior position, or until the situation otherwise changes.*" *Id.* At fn. 3 (emphasis added). Thus, Li's continued insistence that he was entitled to the earlier filing dates, and the lack of any reference by Saba to the Board's decisions in his many rejections of the '800, constitute clear and convincing circumstantial evidence that neither Li nor Kavrukov ever disclosed the Board's decision

to Saba and that Saba was totally unaware of the Board's decision.

Materiality

We also find by clear and convincing evidence that the Board's decision was material to Saba's examination of the '800 application. If Saba had known about the Board's earlier decision, he would have been required to follow it, and Kavrukov clearly knew this. Moreover, it is clear that the priority date for the "within 0.1 microns" limitation was a very material issue. On November 28, 1988, Saba rejected all pending claims of the '800. Among the many reasons he gave for rejecting the claims was the timing of disclosure. "(T)he Examiner disagrees with applicant's assumptions as to when certain concepts were *sufficiently* disclosed as t obe entitled to any specific filing date," DX 2 at 261, and he rejected several claims over Peltzer and Murphy, *Id.* at 262.

In a follow-up memorandum that led Saba to issue the '800, Kavrukov wrote:

> None of the prior art of record *that predates* the 1965 filing date teaches the 0.1 microns feature recited in each independent claims 101, 116 and 118 of this first group. It is submitted that all of the claims of this first group. It is submitted htat all of the claims of this first group are allowable at least for this reason, although it is believed that they recite other patentable features as well....

DX 2 at 304 (emphasis added). He also relies on the 1968 priority date. *Id.*

As a result of this last submission, Saba concluded

that the applicant's reasoning was convincing and allowed the patent to issue. The specific statement of Reasons for Allowance was given as:

> [T]he limitation that the bottom of the isolation groove is less than 0.1 microns from the PN isolation junction (barrier) and that the barrier meets athe groove at a curved portion of the groove. This teaching was not in the prior art.

DX 2 at 316. It is clear, then, that Saba allowed the patent only after he became convinced that Li should be entitled to the priority dates. Thus, the fact that Saba did not have the information about the Board's earlier decision was vital to his eventual allowance of the patent-in-suit.

As discussed above, the Board affirmed Larkins' initial rejection of all claims of the'513, including claim 16, which had disclosed the "within a tenth of a micron" limitation. *See* DX 4 at147. The basis for the rejection was that the "within a tenth of a micron" limitation was found in the prior art reference, and because Li was not entitled to priority dates, he could not overcome that reference. *See* DX 4 at 142. Li argues that the Board's decision as to the '513 was not material to the '800 because the Board's decision applied to a "within one micron" limitation and did not apply to "within 0.1 microns."

However, Li's argument is clearly contrary to the record. Claim 16 of the '513, which was rejected by Larkins, recited the within 0.1 microns limitation. *See* DX 4 at 124. The Board rejected claim 16 as obvious over the prior art references that existed before the '513 filing date but after the filing dates of the '109 and '714 applications. *See* DX 4 at 147. Had the Board found that Li was entitled to priority

of his earlier filed applications for the within 0.1 microns limitation, the prior art references could not have been used to reject claim 16.

Furthermore, the Board stated that"all the claims at bar require that the bottom of the groove(s), be *within* one micron of the FN junction." DX 4 at 142 (emphasis added). Clearly, a limitation of "within one micron" necessarily includes a measurement of 0.1 microns. Therefore, Toshiba argues and we conclude that the Board clearly held that Li's claimed limitation of within 0.1 microns was not entitled to priority. Because the Board had made such an express statement about the "within a tenth of a micron" claim, Saba would have been bound by that decision. On other words, had Saba known that Li was not entitled to priority dates for claim 16 in the '513, Saba would not have been able to allow the "within 0.1 micron" limitation for the '800. The only way Saba could have allowed that claim to survive in light of the prior art was to grant Li the benefit of the priority dates. Thus, Li's failure to disclose the Board's earlier ruling cleared the way for Saba to allow the'800.

As further evidence of materiality, we note that on October 14, 1987, when Saba rejected the then-pending claims of the '800 application. *See* DX 2 at 172-78, he relied on the exact same Peltzer reference cited by the Board in its rejection of the '513 claims six years earlier. *See* DX 2 at 175. The Board previously held that this same Peltzer reference disclosed both the "within one micron" and "roundng " features being claimed in the '513. *See* DX 4 at 143-44 and 147-48. Thus, the Board's previous holdings were based, in part, on the same evidence as Saba's initial rejection of the '800.

The testimony of Li, by deposition, further supports a

finding of materiality. First, Li stated that he thought Saba had effectively "overruled the Board" when he finally approved that '800. Li Depo. at 71. Second, when asked why he did not explicitly ask Saba to overrule the Board's prior ruling, Li said he did not want tot "criticize" the Board. Li Depo. at 76; Trial Tr. at 178. These statements indicate that Li knew how important the Board's decision was, and that Li was fully aware that the Board's decision was contrary to what he was asking Saba to find. Although he is not an attorney, Li is very well educated, very experienced, and a savvy and sophisticated practitioner of patent applications. He testified that he had secured "maybe 40" patents during his career. *See* Trial Tr. at 176. Thus, he clearly understood the importance of the Board's decision, belying any claim that the Board's decision was not material.

As defendants argue, after the '800 was finally allowed, Kavrukov disclosed the Board's decision in the '513 to yet another patent examiner, T. Dang, who was then examining Li's '626 application. As the record makes clear, Kavrukov filed a preliminary amendment with Dang, which included a explicit reference to the Board's decision in the '513 prosecution. *See* DX 60 at L10170. Specifically. the amendment stated:

> The Examiner is respectfully requested to consider all of these related patents and applications, including the prosecution histories and prior art cited in said related patents and applications, the Board decision dated June 17 and August 12, 1981 is related application Ser. No 838, 758 (now patent 4,916,513)
> ....

Id. That information prompted Dang to research the Board's rulings. Dang eventually rejected the '626 application, finding that Li was not entitled to the 1965 and

1968 priority dates associated with the '714 and the '109 patent. *See* DX 60 at L10060. As Dang stated:

> Initially, the issue of effective date of the instant claims needs to be resolved. Applicant makes reference to a Table appearing in his '714 and '109 patents as support for a groove width being less than two microns. There are several reasons why this is not found convincing. First, the instant claims do no appear to recite any width of any groove.... Moreover, it is not clear how the Table provides support for the dimension, even if applicant's assertion is correct, Secondly, there is a break in the continuous chain of copending disclosures, even if applicant is correct.

DX 4 L10060-61. Dang's reasons for rejecting the '626 thus closely track the reasons articulated by the Board in the '513 appeal. *See* DX 4 at 142. ("[A]ppellant has not explained how the referenced table supports the one micron limitation ....How this table supports the feature is beyond us"); 143 ("In any event, even if we were to say that the referenced table in the grandparent application supported the one micron feature... the chain of continuity for this subject matter was broken by the parent application."). Given Kavrukov's disclosure of the Board's decision to Dang, and given Dang's reasons for rejecting the '626, there can be little doubt that the Board's ruling was a material factor in Dang's rejection of the '626 application. Dang's decision thus clearly demonstrates how material the Board's ruling would have been to Saba.

Lastly, Toshiba's expert witness, Henry Manbeck, whom we found to be extremely credible, testified that the Board's decision in the '513 application was material to the

'800 application. *See* Trial Tr. at 86-87. Specifically, Manbeck stated that if Li had believed that the Board's decision was wrong he could have easily "argued why and gone up for another shot on the claims in this application." *Id.* at 97. Yet, inexplicably, Li did not. Moreover, Manbeck testified that examiner Dang's reasons for rejecting the '626 application provided further evidence of the materiality of the Board's decision. *See id.* ("(T)he existence of the Board decision did come before [Dang] [a]nd the examiner, of course, followed the decision.") Given these factual findings, we find that there is clear and convincing evidence that the Board's decision was material to the examination of the '800.

REDACTED PAGE – See Order of May 27, 1989

Intent

The circumstances described above establish clear and convincing evidence that Li intended to withhold disclosure. Moreover, we find that both Li and Kavrukov had multi-million dollar motives to mislead Saba and not to advise Saba that he was being asked to overrule the Board.

Furthermore, it is undisputed that Li knew that the Board had upheld the rejection of the '513 over the Peltzer reference for both the "within 0.1 microns" and "rounding " limitations. Li also knew that the Board had held that (1) the bottom of the groove extended to the PN junction and (2) it would have been obvious to have the groove bottom within one micron of the PN junction. Thus, Li clearly had knowledge of the Board's decision.

Li also knew that Saba's ruling directly contradicted the Board's earlier ruling. Li stated that he thought Saba was

simply "overrul(ing) the Board" when he finally allowed the application. If Li knew that Saba was "overruling" the Board, then Li certainly had knowledge that Saba's decision was contrary to the Board's decision, which Saba was bound to follow. Moreover, when Li stated that he did not want to "criticize" the Board, he was making two crucial admissions: (1) he knew that the Board had previously ruled against him; and (2) he purposely and knowingly did not disclose the Board's prior ruling to Saba. Furthermore, there is no doubt that both Li and Kavrukov were aware of the PTO rule requiring that all business be transacted in writing. *See* Kavrukov Depo. at 9-10; Li Depo. at 22,33-34.

We also find it significant that Kavrukov telephoned Saba at his home before Saba's deposition in this civil action to discuss whether Saba recalled Kavrukov's alleged oral disclosure about the Board's earlier ruling. We find such a contact to be inappropriate, and we consider it a factor supporting our conclusion that Kavrukov did not act in "good faith."

As stated earlier, we reject Li's argument that Saba should have been aware of the Board's decision because it was before him in the record. Given how busy examiners are, it is a well established principle of PTO practice that it is unfair to expect a busy examiner to carry in his mind the details of every patent application before him. *See Armour & Co. v. Swift & Co.*, 466 F.2d 767, 779 (7th Cir. 1972). To the contrary, the duty of candor places the responsibility of clearly identifying all relevant information on those prosecuting patent applications. On the facts established in this record, we find that there is clear and convincing evidence that this duty was intentionally and seriously breached.

CONCLUSION

For the reasons stated above, we find that Li engaged in inequitable conduct in not disclosing the material decision of the Board to the PTO examiner. As such, the '800 patent is unenforceable against any of Toshiba's products or processes, and judgment will be entered in Toshiba's favor on its counterclaim. An appropriate order will issue. The time in which to appeal this decision begins as of this date.

The Clerk is directed to forward copies of this Memorandum Opinion to counsel of record.

Entered the 19th day of May, 1999.

/s/ Leonie M. Brinkema
Leonie M. Brinkema
United States District Judge

Alexandria, VA

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Alexandria Division

THE LI SECOND FAMILY LIMITED PARTNERSHIP Plaintiff,	)	
vs.	)	C. A. No. 97-306-A
TOSHIBA CORPORATION, et al., Defendants.	)	

VOLUME 2

PRETRIAL MOTIONS TRANSCRIPT

January 6, 1998

Before: Leonie M. Brinkema, Judge

APPEARANCES:

Rolf Stadheim, Joseph A. Grear, Amy S. Owen,
Counsel for the Plaintiff

Arthur I. Neustadt, Marc R. Labgold and Ronald L. Yin,
Counsel for the Defendants

MR. LABGOLD: I would just note for the Court's record that the DX 60 is not in Bates numbered order because is was produced in a mixed up number.

THE COURT: I saw that. That's all right.

MR. LABGOLD: Yes. So, in this notice of abandonment, the examiner says the application is abandoned because Dr. Li failed to respond to an office action.

So, the net result of that 22– '626 case was that they abandoned it. They realized they couldn't do anything with Examiner Dang.

Thank you, Your Honor.

THE COURT: All right. Well, counsel, I have listened for over a day now very carefully to the arguments and to the evidence. I have had a chance to go over carefully the proposed findings of fact and conclusions of law. And as you have talked about the various exhibits, I have been able to read them along with you.

And because of the particular procedural status of the case, what I am going to do is give you a very brief oral summary of why I am ruling the way I am. The full bases for my ruling will have to be spelled out in a more detailed memorandum opinion. But I think you need to know what the status of the case since there is a jury waiting to come in tomorrow.

And having listened to all the evidence, I am satisfied that the defendant has been able to establish by clear and convincing evidence that the plaintiff engaged in inequitable conduct before the Patent and Trademark Office in prosecuting the '800.

I will very briefly, as I explain– As I said, I am not going to explain them all, but give you a general overview of my ruling, refer to the patent in their abbreviated form.

As we all know, there is a three part test for inequitable conduct. The first is the issue of disclosure. The second is the issue of materiality. And the third is the issue of intent.

Now, the '800 patent in suit is directed to a method for making a semiconductor chip. There is no dispute about that.

The '800 application was filed in 1973 and was finally allowed in 1989. And there is no dispute that Saba was the examiner throughout the prosecution history of this patent.

The patent, as everybody has said already in court, is I think actually the great grandchild. It is the fourth generation of a family of patents that begins with the '109 that was initially issued in 1964, I believe. And then there were several continuations in part, the '714, then the '300 and finally the '800. That's the familial line of patents here.

The critical claims for purposes of this case, as I understand it, would be claim 14 and claim 22 of the '800 patent. And the critical portions of those two claims, which is really at issue in this case, is as to 14, the language: Wherein the forming step comprises rounding at least a major portion of the width of the isolating groove and positioning the bottom of the groove to within about 0.1 microns of the level of the intersection between the groove and the rectifying barrier.

The last sentence of Claim 22 reads in a very similar fashion, and again refers to the isolation groove having a bottom within about 0.1 microns from the level of the nearest intersection of said PN, et cetera.

Now, that's the clear language in those two claims. Now, the problem is in this case, as we all know, that a sibling patent, and that is the '513, was also before the Patent Office, a different patent examiner, Larkins, at the same time.

And in Claim 1 of the '513 application there is what I find to be extremely similar material claimed. And that is , and I am again abbreviating from that, Claim 1 of the '513 says: A semiconductor material structure comprising, and then at the very end, closed annular grooves of an electrically isolating matter which extend downwardly into the structure from the top surface. Said layers intersect the PN junction and divide a top portion of the structure into a plurality of islands which are laterally spaced from each other by the width of the grooves and are electrically isolated from each other by said grooves and said PN junction, each groove having a bottom which is within 1 micron of the PN junction.

And then there are other claims withing the application which depend upon Claim 1. I think those are Claims 16, and then there are claims, other claims as well within the '513. And I will spell that out in more detail.

In any case, as we all knew, in the '513 the initial examiner, Larkins, rejected portions of that, of those claims citing various prior art. And in 1981– That rejection was appealed by Dr. Li.

And the Board in 1981, in reviewing Larkins' work, found, among other things, that Dr. Li was not entitled to using the earlier filing dates of the '714 patent because Table 1 upon which he had relied did not support the within 1 micron limitation.

And the quote that I think is critical here is, quote: A threshold issue with respect to the art rejection is whether the appellant is entitled to the benefit of the filing dates of his earlier applications.

All the claims at Bar require that the bottom of the groove or grooves, plural, by within 1 micron of the PN junction.

And by the way, counsel. so that there is no misunderstanding. I think it absolutely stretches the English language beyond comprehension not to state that 0.1 microns is within 1 micron. I think that's the plain reading of how that language would go.

The appellant says that this feature is disclosed in Table 1 at page 10 of grandparent application serial number 761,646 and at the top of column 7 of the resulting patent, which is the '714.

The appellant has not explained how the reference table supports the 1 micron limitation. The table pertains to surface expansion as it relates to grooves of different radil of curvature and depths. How this table supports the feature in question is beyond us.

And I believe that's what has been referred to as the criticality issue in this case.

The Board also held that even if the '714 application did support the within 1 micron limitation, Dr. Li would still not be entitled to its filing date because of a break in continuity because the intervening '300 application, in the Board's opinion, did not include Table 1.

So, that there are two different grounds why the Board held that Dr. Li could not take advantage of the earlier filing date, thereby avoiding various prior art references after that date which created problems for that particular limitation.

We all know, and again it is not contested in the record, that that Board opinion was a request for a rehearing or re-examination– I guess it is a reconsideration was made. The Board reconsidered and reaffirmed the same bases for its ruling.

So, that in effect was the final Board action, and no further appeal or review was sought by the plaintiff.

Now, going back to the prosecution of the'800. There is no question in my mind from this record that the plaintiff failed to disclose th the Board– To Examiner Saba those Board decisions, either the original decision or the rehearing decision. There is not within the written record of the '800 prosecution history a single, in my opinion, explicit reference to the Board's decisions.

And I do think it is instructive to look at the statement provided in the '626 history, because that's clearly how it should have been done. A clear reference, not just to a sibling patent, but to the particular decisions within that sibling patent application.

Nothing like that was done in this case, at least there is no evidence of that having been done.

Now, the only evidence in this record that there was disclosure of the decisions comes from the testimony of plaintiff's counsel, patent counsel, who stated essentially,

and I will have to go over my notes for more specific details when I do the written opinion, but essentially stated that he had, in fact, had such discussions with Mr. Saba, that they had discussed the '513 Larkins in particular, and that the appeals, or the Board decisions had been discussed.

I read Saba's deposition after court last night. Saba not only recalled nothing about those discussions, but he was, in fact, and I checked, because I know plaintiff's counsel was concerned about the Saba deposition coming in, you did get a chance, and I think it was your, sir, who did ask Saba whether he had talked with Larkins about the '513. And he couldn't recall.

So, I mean, even that issue was pursued with Saba when he was deposed. But in any case, Saba is unable to confirm anything said by plaintiff's witness on this issue.

Now, the testimony of counsel itself is simply, in my opinion, not sufficient when one looks at the general proposition that what is done in a prosecution history needs to be written format.

I don't believe I am inconsistent with Judge Cacheris' earlier ruling that a disclosure could be made orally. I think that is correct. You could make a proper disclosure orally. However, there needs to then be a record of that somehow.

This, in my opinion, and the history of these patents these Board decisions were too significant for there not to have been some kind of a written record if there had been oral disclosure.

In any case, I find that there just is not enough evidence.

In addition to which, it is also true that patent counsel was not an uninterested witness in this case. He did definitely has a financial stake in the results of this decision. That is a factor the Court may consider in making a total credibility finding.

But I do find that there was no disclosure made.

And I note that Rohm & Haas Company versus Crystal Chemical Company does strongly support the proposition that the written record is the official record in a prosecution history. And the Court must decide these types of issues based upon that record. And, therefore, I do find that there was no disclosure.

But in addition– And it is interesting that no one has really focused extensively on this aspect of the disclosure problem in this case. I also find that there is significant evidence in this record of misdisclosure or of false or misleading information being presented to Examiner Saba in the continual insistence by the plaintiff in prosecuting the patent that the plaintiff had the benefit of the original '714 filing date for prior art purposes.

That is, not only do we have in this record no proof or evidence of the Board's decisions on this issue being presented to the examiner, we also, in my opinion, have significant evidence, mostly through I think it was Dr. Li's arguments, but I don't want to ascribe it, I have to go over my notes, but clearly the way the patent was being prosecuted, it was as if the Board had never done anything.

The constant arguments and representations that the '714 date was the proper date in my opinion is another separate group of violations of the disclosure or the duty of

candor aspect of the inequitable conduct analysis.

And so, I do find that first prong has been clearly met by clear and convincing evidence by the defendant.

Now, the next issue is materiality. And as I understand it, materiality when we are talking about it in this type of a case has the definition basically under, I think it is American Hoist and Derricks Company, that is, it is material which might reasonably have affected the examiner's decision as the patentability. It doesn't mean that it would have, but might reasonably have.

I don't think there is any question, given the fact that Saba when he did go ahead and finally issue the patent, that one of the grounds upon which he issued it was this within 0.1 micron limitation: There were two grounds, and they were conjoined. So, it is a conjunctive.

He granted the patent for those two reasons that he gave, but they are joined together, not as independent reasons. And so, half of the bases upon which he issued this patent involve that issue.

And we certainly, I do find that the way in which the '626, with its very similar discussion or very similar claim of the dimensionality here, was rejected by another patent examiner who had those hearings before him, had those Board decisions before it, is very strong evidence that the Board decisions were material.

I also think that the testimony of Dr. Li in his deposition strongly supports a finding of materiality. He may not be a lawyer, but he is a very, very well educated person, very experienced, sophisticated practitioner before the Patent

Office. And he certainly saw the conflict between what Saba had done and the Board decisions by using the term, loosely I think, but still using it, of Saba having effectively reversed the Board.

So, I don't think there is any question on this record that these decisions were material.

And the last issue the Court has to decide is the one of intent. Now, intent can be proven by direct or indirect evidence. It is almost always by indirect evidence.

Although in this case, as the defendants have argued, it is quite– There is some strong evidence in some of Dr. Li's statements that it was a conscious decision not to present the Board's decisions to the patent examiner.

But in addition to that, the Court could from indirect evidence, that is from the degree of materiality and both the nondisclosure plus the inaccurate presentation of information, draw through indirect evidence the clear inference that there was an intent to mislead the Patent Office. And I do that.

Now, again, I will buttress this decision with much more detail. I want to go through and cite from portions of the record, but that is my ruling in this case.

Appeal time will not start until I have issued a formal written opinion, which will take a little time.
However, at this point there is no need– I don't believe there is a need for a trial.

Are there any other issues? Because with a finding of inequitable conduct, as I understand what happens, the patent

is not declared invalid, but that results in a finding of unenforceability.

And I don't know if there are any other issues in this lawsuit. I believe the RICO count is gone.

MR. NEUSTADT: That's correct. No need for a trial, Your Honor.

THE COURT: All right. Is that correct, counsel, no need for a trial?

MR. STADHEIM: That's my understanding, Judge.

THE COURT: All right, that's fine. I will get an opinion out as quickly as I can. And, as I said, appeal time will start to run once you get those final papers.

All right, thank you very much.
We will recess court until tomorrow morning.

HEARING CONCLUDED

I certify that the foregoing is a true and accurate transcription of my stenographic notes.

/s/ Norman B. Linnell
Norman B. Linnell, CP, CM, CE

United States Court of Appeals for the Federal Circuit

99-1451

THE LI SECOND FAMILY LIMITED PARTNERSHIP

Plaintiff-Appellant,

v.

TOSHIBA CORPORATION and
TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.,

Defendants-Appellees.

ORDER

United States Court of Appeals for the Federal Circuit

ORDER

A combination petition for panel rehearing and for rehearing en banc having been filed by the APPELLANT, and a response thereto having been invited by the court and filed by the APPELLEES, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the petition for rehearing en banc and response having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for panel rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the petition for rehearing en banc be, and the same hereby is, DENIED.

The mandate of the court will issue on January 16, 2001.

Circuit Judge Linn did not participate in the vote.

FOR THE COURT,
Jan Horbaly
Clerk

Dated: January 9, 2001

cc: Rolf Stadheim
Arthur I. Neustadt

LI SECOND FAMILY LP V TOSHIBA CORP, 99-1451
(DCT - 97-CV-306)

Note: Pursuant to Fed. Cir. R. 47.6, this order is not citable as precedent. It is public record.

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Appeal No. 99-1451

THE LI SECOND FAMILY LIMITED PARTNERSHIP,

Plaintiff-Appellant,

v.

TOSHIBA CORPORATION and TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.,

Defendants-Appellees.

LI'S MOTION TO FILE REPLY IN SUPPORT OF PETITION FOR REHEARING AND REHEARING EN BANC

Toshiba, in addressing the issue of unpublished opinions, states that the case relied upon by Li, *Anastasoff v. United States*, 223 F.3d 898, 56 U.S.P.Q.2d 1621 (8th Cir. 2000), was vacated by the Eighth Circuit sitting *en banc*. Toshiba's Opposition at 1, citing *Anastasoff v. United* States, 2000 U.S. App. LEXIS 32055 (8th Cir. Dec. 18, 2000). Nowhere in its Oppostion does Toshiba indicate that this en

banc opinion was rendered *after* Li filed its Petition, thereby rendering it impossible for Li to have addressed that opinion therein. Nor does Toshiba ever state that the Eighth Circuit vacated the panel's decision in *Anastasoff* because of *mootness*, and not because the panel was wrong in deciding that precluding

Leave to file is DENIED.

FOR THE COURT,

/s/ Jan Horbaly
Clerk

Jan -9 2001
Date